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Proposed Maximum Residue Limit PMRL2013-106

Chlorantraniliprole

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Under the authority of the *Pest Control Products Act*, Health Canada's Pest Management Regulatory Agency (PMRA) has concluded that the addition of new uses on root and tuber vegetables (Crop Group 1), rapeseed (Crop Subgroup 20A), sunflower (Crop Subgroup 20B) and soybeans to the product label of DuPont™ Coragen™ Insecticide, containing technical grade chlorantraniliprole, and the addition of new uses on bushberry (Crop Subgroup 13-07B) and low growing berry (Crop Subgroup 13-07G) to the product label of Dupont™ Altacor™ Insecticide, containing technical grade chlorantraniliprole, is acceptable. The specific uses approved in Canada are detailed on the labels of DuPont™ Coragen™ Insecticide and Dupont™ Altacor™ Insecticide, *Pest Control Products Act* registration numbers 28982 and 28981, respectively.

The evaluation of these chlorantraniliprole applications indicated that the end-use products have merit and value, and the human health and environmental risks associated with the new uses are acceptable.

Before registering a pesticide for food use in Canada, the PMRA must determine the quantity of residues that are likely to remain in or on the food when the pesticide is used according to label directions and that such residues will not be a concern to human health. This quantity is then legally established as a maximum residue limit (MRL). An MRL applies to the identified raw agricultural food commodity as well as to any processed food product that contains it, except where separate MRLs are specified for the raw agricultural commodity and a processed product made from it.

In addition, the PMRA is proposing to establish MRLs for chlorantraniliprole on citrus fruit (Crop Group 10-revised) and cottonseed (Crop Subgroup 20C) to permit the import and sale of food containing such residues. The PMRA has determined the quantity of residues that are likely to remain in or on the imported commodities when chlorantraniliprole is used according to label directions in the exporting country, and that such residues will not be a concern to human health.

Consultation on the proposed MRLs for chlorantraniliprole is being conducted via this document (see Next Steps, the last section of this document). A summary of the field trial data used to support the proposed MRLs can be found in appendix I.

To comply with Canada's international trade obligations, consultation on the proposed MRLs is also being conducted internationally by notifying the World Trade Organization, as coordinated by the Standards Council of Canada.

The proposed MRLs, to replace or be added to the MRLs already established for chlorantraniliprole, are as follows.

Table 1 Proposed Maximum Residue Limits for Chlorantraniliprole

Common Name	Residue Definition	MRL (ppm)	Food Commodity
Chlorantraniliprole	3-Bromo-N-[4-chloro-2-methyl-6-[(methylamino)carbonyl]phenyl]-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxamide	2.5	Lowbush blueberries
		2.0	Rapeseed (Crop Subgroup 20A), sunflower (Crop Subgroup 20B), soybeans[a]
		1.0	Low growing berry (Crop Subgroup 13-07G) except lowbush blueberries
		0.7	Citrus fruit (Crop Group 10-revised)
		0.3	Root and tuber vegetables (Crop Group 1)[b], Cotton (Crop Subgroup 20C)[c]
		0.35	Bushberry (Crop Subgroup 13-07B), except lowbush blueberries and gooseberries
		0.05	Fat and meat byproducts of poultry[d]
		0.02	Meat of poultry[e]

ppm= parts per million

[a] The currently established MRL of 2.0 ppm for legume vegetables (CG 6) except soybeans will be extended to soybeans.

[b] The proposed MRL of 0.3 ppm will replace the currently established MRL of 0.01 ppm for corm and tuberous vegetables (CSG 1C).

[c] The currently established MRL of 0.3 ppm for undelinted cottonseed will be extended to Crop Subgroup 20C.

[d] The proposed MRL of 0.05 ppm will replace the currently established MRL of 0.01 ppm for fat and meat byproducts of poultry.

[e] The proposed MRL of 0.02 ppm will replace the currently established MRL of 0.01 ppm for meat of poultry.

MRLs are proposed for each commodity included in the listed crop groupings in accordance with the Residue Chemistry Crop Groups webpage in the Pesticides and Pest Management section of Health Canada's website.

MRLs established in Canada may be found using the Maximum Residue Limit Database on the Maximum Residue Limits for Pesticides webpage. The database allows users to search for pesticide(s) or for food commodity(ies).

International Situation and Trade Implications

MRLs may vary from one country to another for a number of reasons, including differences in pesticide use patterns and the locations of the field crop trials used to generate residue chemistry data. For livestock commodities, differences in MRLs can also be due to different livestock feed items and practices.

Table 2 compares the MRLs proposed for chlorantraniliprole in Canada with corresponding American tolerances and Codex MRLs.[1] American tolerances are listed in the Electronic Code of Federal Regulations, 40 CFR Part 180, by pesticide. A listing of established Codex MRLs is available on the Codex Alimentarius Pesticide Residues in Food website, by pesticide or commodity.

Table 2 Comparison of Canadian MRLs, American Tolerances and Codex MRLs (where different)

Food Commodity	Canadian MRL (ppm)	American Tolerance (ppm)	Codex MRL (ppm)
Root and tuber vegetables (Crop Group 1)	0.3	0.3	0.02
Legume vegetables (Crop Group 6)	2.0	2.0	Not Established
Citrus fruits (Crop Group 10-revised)	0.7	1.4	0.5
Bushberry (Crop Subgroup 13-07B), except lowbush blueberries and gooseberries[a]	0.35	2.5 (Bushberry, subgroup 13-07B), including lowbush blueberries	1 (Berries and other small fruits)
Lowbush blueberries	2.5		
Rapeseed (Crop Subgroup 20A), sunflower (Crop Subgroup 20B)	2.0	2.0	Not Established

[1] The Codex Alimentarius Commission is an international organization under the auspices of the United Nations that develops international food standards, including MRLs.

Food Commodity	Canadian MRL (ppm)	American Tolerance (ppm)	Codex MRL (ppm)
Fat of poultry	0.05	0.01	0.01
Meat by-products of poultry	0.05	0.02	Edible offal of poultry
Meat of poultry	0.02	Not Established	0.01

[a] The currently established MRL of 1.2 ppm for residues of chlorantraniliprole in/on gooseberries will remain the same.

Next Steps

The PMRA invites the public to submit written comments on the proposed MRLs for chlorantraniliprole up to 75 days from the date of publication of this document. Please forward your comments to Publications (see the contact information on the cover page of this document). The PMRA will consider all comments received before making a final decision on the proposed MRLs. Comments received will be addressed in a separate document linked to this PMRL. The established MRLs will be legally in effect as of the date that they are entered into the Maximum Residue Limit Database.

Appendix I

Summary of Field Trial Data Used to Support the Proposed Maximum Residue Limits

Residue data from field trials conducted in Canada and the United States were submitted to support the domestic use of DuPont™ Coragen™ Insecticide on the complete root and tuber vegetables (Crop Group 1), soybeans, canola (Crop Subgroup 20A) and sunflower (Crop Subgroup 20B), and to support the registration of Dupont™ Altacor™ Insecticide on bushberries (Crop Subgroup 13-07B) and low growing berries (Crop Subgroup 13-07G). Residue data from field trials conducted in the Republic of South Africa were also provided to allow the importation of citrus fruits treated with the DuPont™ Coragen™ label of the Republic of South Africa. Previously reviewed residue data from field trials conducted in/on potato and cotton were reassessed in the framework of this petition. In addition, processing studies on soybean and cotton were reviewed to determine the potential for concentration of residues of chlorantraniliprole into processed commodities.

Maximum Residue Limit(s)

The recommendation for maximum residue limits (MRLs) for chlorantraniliprole was based upon the submitted field trial data, and the guidance provided in the OECD MRL Calculator, as well as Guidance for Setting Pesticide Maximum Residue Limits Based on Field Trial Data. Table A1 summarizes the residue data used to calculate the proposed MRLs.

TABLE A1 Summary of Field Trial and Processing Data Used to Support Maximum Residue Limit(s)

Commodity	Application Method/ Total Application Rate (g a.i./ha)	PHI (days)	Residues (ppm)		Experimental Processing Factor
			Min	Max	
Radish	Foliar broadcast/224–232	1	0.021	0.26	None
Soybean	Foliar broadcast/224	1	0.17	0.23	None
Canola	Foliar broadcast/219–231	1	0.12	1.2	None
Sunflower	Foliar broadcast/219–230	1	0.027	0.85	None
Cottonseed	Foliar broadcast/224	0	0.077	0.24	None
Strawberry	Foliar broadcast; 217–235	1	0.18	0.69	None
Highbush blueberries	Foliar broadcast/222–238	1	0.072	0.269	None
Lowbush blueberries	Foliar Broadcast/224–226	1	0.145	0.908	None
Soft citrus[1]	Foliar broadcast / 494–632	7	0.130	0.320	None

PHI = preharvest interval; ppm = parts per million

[1]Including Nova Clementine, Nova Tangelo, Satsuma, Nules, Valencia Late, Soft Citrus Nardocott, Soft Citrus Satsuma, Soft Citrus Nules.

Based on the dietary burden and residue data, MRLs of 0.02 ppm in meat of poultry and 0.05 ppm in fat and meat byproducts of poultry to cover residues of chlorantraniliprole are also proposed to replace the currently established MRL of 0.01 ppm in meat, fat and meat byproducts of poultry.

Following the review of all available data, MRLs as proposed in Table 1 are recommended to cover residues of chlorantraniliprole. Residues of chlorantraniliprole in these crop/livestock commodities at the proposed MRLs will not pose an unacceptable risk to any segment of the population, including infants, children, adults and seniors.